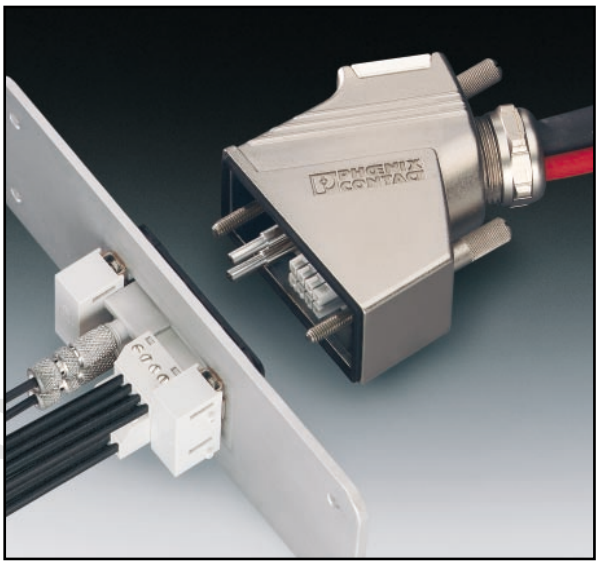
PHOENIX CONTACT
INNOVATION IN INTERFACE

PLUSCON Industry Plug Connectors
VARIOCON Fibre Optics

Contact Inserts for Polymer Fibre



Absolute Electromagnetic Immunity

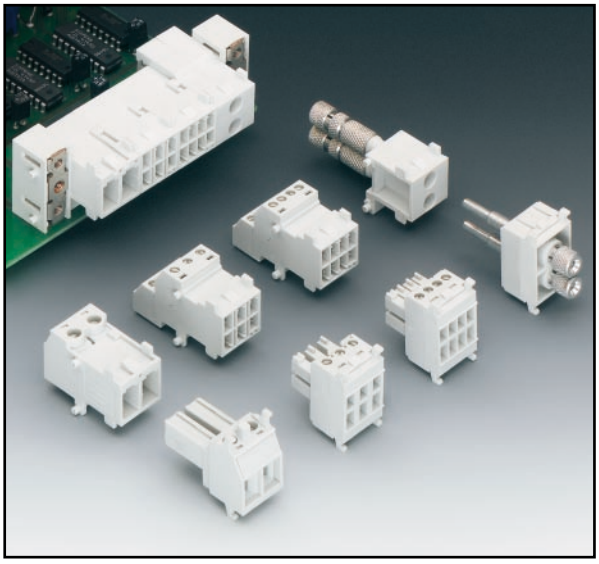
The FO transmission technology leads to an increased reliability of machines and plants. Interferences at transmission lines, for example, between devices or sensors and controls, can only be reliably avoided via FO transmissions.

Power and Signal Transmission in Copper and Fibre Optic in one Plug Connector

Via this modular rectangular plug connector signals can be transmitted in copper lines and in fibre optics. Together with the power supply, a splash-water protected plug connector is required for this.

On Site Assembly in 2 Minutes

On site assembly of the polymer fibres takes only 2 minutes per fibre. Neither gluing nor crimping is required to realize a reliable fibre optic connection.



Compatible with all VARIOCON Products

The FO modules for our VARIOCON industry plug connectors are used to connect these transmission lines. The modules can be combined with all other modules from the VARIOCON series. With the help of the polymer fibre lines, distances of up to 50 m can be conveniently bridged. The contact inserts for the VARIOCON modular system are available as wall feed throughs and with the relevant transmitting and receiving diodes for direct connection on the PCB.

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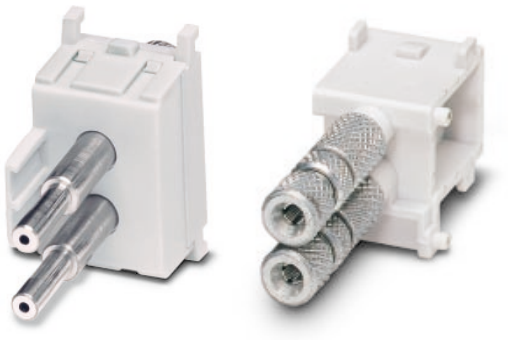
VARIOCON Fibre Optics

Screw Connection

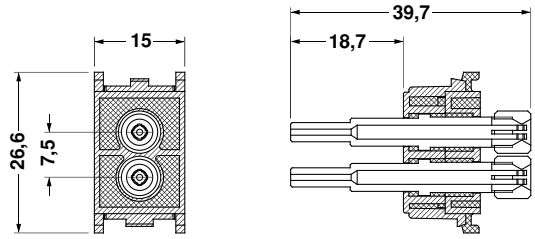


Technical Data

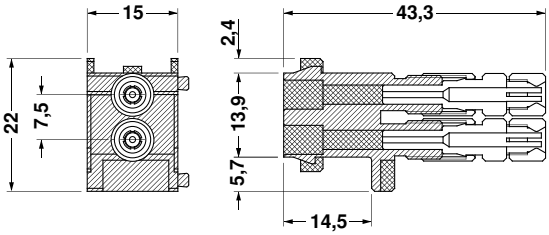
		Type	Order No.	Pcs. Pkt.
Contact insert	for hoods	**VC-TFS-FO-M-KD**	**18 55 81 4**	10
	for panel mounting frames	**VC-AMS-FO-M-KD**	**18 55 60 7**	10
Terminal block pitch		7.5 mm		
Attenuation		< 3 dB (acc. to DIN-EN 186000) method: 7, section 4.4.7[1)]		
Cable type		Polymer fibre cable (980/1000 µm)		
Material	Housings	PA		
	Ferrules	nickel silver		
Plug cycles		> 100		
Inflammability		V0		
Temperature indices RTI/Ti		130/120		
Torque knurled screw		torque 0.1 Nm, (hand-tight)		
Stripping length of the single conductor		min. 12 mm		

[1)] Preparation according to the FO installation directive IBS SYS ASSEMBLY, data sheet 55701 by Phoenix Contact

Dimensional drawing VC-TFS-FO-M-KD



Dimensional drawing VC-AMS-FO-M-KD



VARIOCON Fibre Optics
Solder Connection

Technical Data

		Type	Order No.	Pcs. Pkt.
Contact insert	for panel mounting frames	**VC-AML-FO-M-KD**	**18 55 58 4**	10

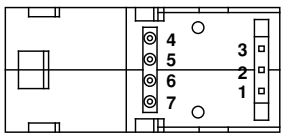
Maximum Ratings

Ambient temperature (operation)		- 20 °C bis + 70 °C
Ambient temperature (storage)		- 40 °C bis + 85 °C
Solder temperature (1mm away from the housing)		max. + 260 °C (< 3s)
Transmission rate		max. 2 Mbit/s
Transmission distance	Polymer fibre, max 230 dB/km measured with 660 nm LED	max. 50 m
Transmitter		
Peak forward current (PIN 4 → 5)		max. 90 mA
Avarage forward current		max. 60 mA
Max. reverse input voltage		max. 3 V
Receiver		
Voltage supply(V_{CC})		min. - 0.5 V, max. 7 V
High-level output current (PIN 3)		max. - 1 mA
Low-level output current (PIN 3)		max. 20 mA

Recommended Operating Condition

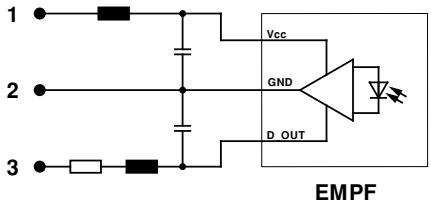
Transmitter	
Forward current	max. 60 mA
Receiver	
Voltage	min. 4.75 V, max. 5.25 V
High-level output current	max. - 60 µA
Low-level output current	max. 1.2 mA

Pinning of the Component (bottom view)



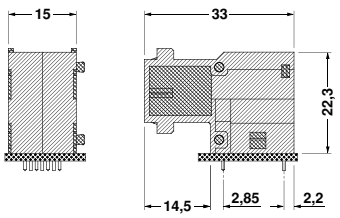
1	V_{CC}	Receiver
2	GND	Receiver
3	Digital OUT	Receiver
4	Anode	Transmitter
5	Cathode	Transmitter
6	N.C.	
7	N.C.	

Internal Receiver Wiring



EMPF

Dimensional drawing



Drilling plan